

Please replace the paragraph beginning on page 2, line 14, with the following rewritten paragraph:

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--In practice, however, such conventional PDPs have not always been able to achieve satisfactory luminance. In order to improve luminance, it is considered necessary to enclose the discharge gas inside the discharge spaces 2200 at an internal pressure exceeding 500 Torr ( $6.65 \times 10^4$  Pa).--.

Please replace the paragraph beginning on page 2, line 19, with the following rewritten paragraph:

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-- However, with the internal pressure in the discharge spaces 2200 is raised to 760 Torr ( $1.01 \times 10^5$  Pa) or 1000 Torr ( $1.33 \times 10^5$  Pa), for example, gaps are generated between the barrier ribs 2103 formed on the back glass plate 2101 and the front substrate 2000, while the front and back substrates 2000 and 2100 bulge outwards. This means that neighboring discharge spaces 2200 are no longer effectively divided by the barrier ribs 2103, causing the display performance of the PDP to deteriorate.--.

Please replace the paragraph beginning on page 3, line 1, with the following rewritten paragraph:

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--Even if the internal pressure is set at 760 Torr ( $1.01 \times 10^5$  Pa) or less, the barrier ribs 2103 are not connected to the front substrate 2100, so that external vibrations or vibrations caused by driving the PDP itself bring the barrier ribs 2103 and the front substrate 2000 repeatedly into contact, generating noise.--.

Please replace the paragraph beginning on page 4, line 26, with the following rewritten paragraphs:

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--To fulfil the above first object, a display panel manufacturing method, comprising an application process for applying a bonding agent to a plurality of barrier ribs formed on at least one of a pair of substrates, and a connection process for arranging the pair of substrates together via the bonding agent that has been applied to the barrier ribs is provided. The application process includes a bonding agent layer forming step for forming a layer of a past-like bonding agent having an even surface over a substrate having an even surface; and a connecting step for simultaneously bringing a top of each barrier rib down into contact with the bonding agent layer, while regulating a distance between the upper surface of the bonding agent layer and the barrier ribs.

A display panel manufacturing method may further include an application process for applying a bonding agent to a plurality of barrier ribs formed on at least one of a pair of substrates, and a connection process for arranging the pair of substrates in opposition and connecting the pair of substrates together via the bonding agent that has been applied to the barrier ribs. The application process includes a bonding agent layer forming step for forming a layer of a paste-like bonding agent having an even surface so as to embed a position regulating member that regulates positions of the barrier ribs within the layer, the position regulating member being arranged on a substrate having an even surface; and a connecting step for bringing a top of each barrier rib down into contact with the position regulating member to apply the bonding agent simultaneously to the tops of all of the barrier ribs while regulating a distance between the upper surface of the bonding agent layer and the barrier ribs.

Furthermore, a display panel manufacturing method may include an application process for applying a bonding agent to a plurality of barrier ribs formed on at least one of a pair of

substrates in opposition and connecting the pair of substrates together via the bonding agent that has been applied to the barrier ribs. The application process includes a bonding agent layer forming step for forming a layer of a paste-like bonding agent having a curved surface so as to embed a position regulating member that regulates positions of the barrier ribs within the layer, the position regulating member being arranged on a substrate having a curved surface; and a connecting step for bringing a part of each barrier rib top down into contact with the position regulating member, and then to move the position regulating member along a length of the barrier ribs to apply the bonding agent to the tops of all of the barrier ribs while regulating a distance between the upper surface of the bonding agent layer and the barrier ribs.--.

Please replace the paragraph beginning on page 5, line 15, with the following rewritten paragraph:

--In this way, the invention aligns barrier rib tops and the bonding agent arranged on the barrier rib tops using surface tension created on the surface of the barrier ribs by bringing the barrier rib tops and the surface of a bonding paste layer into the appropriate degree of contact. This method is used rather than a screen plate with an aperture pattern like that used in screen-printing. As a result, the bonding agent can be applied evenly along the narrow barrier rib tops using a simple technique, even if the barrier rib tops are not strictly linear, and form wavy lines.--.

~~Please delete the paragraph beginning on page 7, line 15.~~

~~Please delete the paragraph beginning on page 7, line 22.~~

~~Please delete the paragraph beginning on page 7, line 26.~~

~~Please delete the paragraph beginning on page 8, line 15.~~

~~Please delete the paragraph beginning on page 8, line 19.~~

✓ Please delete the paragraph beginning on page 8, line 26. .

✓ Please delete the paragraph beginning on page 9, line 7. .

✓ Please delete the paragraph beginning on page 9, line 11.

✓ Please delete the paragraph beginning on page 9, line 20.

Please add the following paragraph before the paragraph beginning on page 9, line 23:

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--Here, the relative positions of the barrier ribs and the bonding agent can be altered while keeping the barrier ribs in contact the bonding agent layer. This enables the bonding agent to be applied more evenly to the barrier rib tops.--.

✓ Please delete the paragraph beginning on page 9, line 25.

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Please replace the paragraph beginning on page 10, line 4, with the following rewritten paragraph:

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--The position regulating member may be made from wire rods, which are either interwoven or lined up precisely. The position regulating member may also be composed of indentations and protrusions formed on the surface of a flat substrate, or may be a plurality of half-cylinders, the barrier rib tops being brought into contact with the curved surface of the half-cylinders.--.

Please replace the paragraph beginning on page 11, line 16, with the following rewritten paragraph:

AL  
Conc  
--Also in order to achieve the above first object, a display panel manufacturing method, for connecting a pair of substrates arranged in opposition, via a bonding agent, which has been applied to a plurality of barrier ribs formed in a specific pattern on at least one of the substrates is provided. The display panel manufacturing method includes a barrier rib pattern forming process

including a first step for laminating the barrier rib forming material and the bonding agent by forming layers of certain thicknesses; a second step for simultaneously pressing down the laminated barrier rib forming material and bonding agent using a same pattern-forming member to form the specific pattern; and a third step for transferring a molded pattern formed in the barrier rib forming material and bonding agent to the substrate on which the barrier ribs are to be formed.--.

Please replace the paragraph beginning on page 12, line 4, with the following rewritten paragraph:

--Here, the barrier rib tops and the bonding agent arranged on 5 the barrier tops are aligned by forming the pattern for the barrier ribs and the bonding agent simultaneously. This method is used rather than a screen plate with an aperture pattern like that used in screen-printing. As a result, the bonding agent can be applied evenly along the narrow barrier rib tops using a simple technique, even if the barrier rib tops are not strictly linear, and form wavy lines. This produces a display panel with greater bonding strength.--

Please delete the paragraph beginning on page 12, line 13.

Please delete the paragraph beginning on page 12, line 23.

Please replace the paragraph beginning on page 13, line 17, with the following rewritten paragraph:

--Also, in order to achieve the above first object, a display panel manufacturing method, for connecting a pair of substrates arranged in opposition via a bonding agent arranged on a plurality of barrier ribs formed in a specific pattern on at least one of the substrates is provided. The display panel manufacturing method includes an indentation forming process for forming at

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concluded

least one indentation in a center of each barrier rib top, when viewed widthwise; and a bonding agent arranging process for arranging the bonding agent in the indentations.--.

Please replace the paragraph beginning on page 13, line 26, with the following rewritten paragraph:

--The barrier rib tops and the bonding agent arranged on the barrier rib tops are here aligned by indentations formed in advance in the central area of the barrier rib tops. This method is used rather than a screen plate with an aperture pattern like that used in screen-printing. As a result, the bonding agent can be applied evenly along the narrow barrier rib tops using a simple technique, even if the barrier rib tops are not strictly linear, and form wavy lines.--

Please replace the paragraph beginning on page 15, line 8, with the following rewritten paragraph:

--In order to achieve the first object, a display panel manufacturing method, for connecting a pair of substrates arranged in opposition via a bonding agent arranged on a plurality of barrier ribs formed in a specific pattern on at least one of the substrates is provided. A process for arranging the bonding agent on the barrier ribs includes an attaching process for attaching a bonding agent positioning member to the barrier ribs; a first removing process for removing parts of the bonding agent positioning member attached to the barrier rib tops at positions corresponding to the specific pattern, to form a groove along each barrier rib top; a bonding agent filling process for filling the grooves with the bonding agent, while maintaining the relative positions of the grooves and the barrier rib tops; and a second removing process for removing the remaining bonding agent positioning member.--.

Please replace the paragraph beginning on page 15, line 20, with the following rewritten paragraph:

AB  
-- Here the barrier rib tops and the bonding agent arranged on the barrier rib tops are aligned based on a pattern formed so that it conforms to the barrier rib pattern. This method is used rather than a screen plate with an aperture pattern like that used in conventional screen-printing techniques. As a result, the bonding agent can be applied evenly along the narrow barrier rib tops using a simple technique, even if the barrier rib tops are not strictly linear, and form wavy lines. This enables a display panel with greater bonding strength to be obtained. Further more, the bonding agent is prevented from flowing off the barrier rib tops by the bonding agent positioning member, until the bonding agent positioning member is removed.--

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Please replace the paragraph beginning on page 16, line 6, with the following rewritten paragraph:

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--The adhesion process is performed by applying the bonding agent positioning member to the barrier ribs after a connecting layer is formed on either the barrier ribs or the bonding agent positioning member.--

Please replace the paragraph beginning on page 16, line 9, with the following rewritten paragraph:

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--The first removing process removes parts of the bonding agent positioning member attached to the barrier rib tops by irradiating the surface of the bonding agent positioning member with a laser.--

Please delete the paragraph beginning on page 16, line 11.

Please delete the paragraph beginning on page 16, line 18.

Please replace the paragraph beginning on page 17, line 6, with the following rewritten paragraph:

-- The above first object may also be achieved by a display panel manufacturing method, for connecting a pair of substrates arranged in opposition via a bonding agent applied to a plurality of barrier ribs formed on at least one of the substrates. A process for arranging the bonding agent on the barrier ribs includes an arranging process for bringing an already formed bond sheet into contact with tops of the barrier ribs; a transfer process for transferring the bonding agent to the parts of the barrier rib in contact with the bond sheet by pressing the bond sheet onto the barrier rib tops; and a removing process for separating the bond sheet from the barrier ribs.--

Please delete the paragraph beginning on page 18, line 3.

Please replace the paragraph beginning on page 18, line 11, with the following rewritten paragraph:

--The above first object may also be achieved by a display panel manufacturing method, for connecting a pair of substrates arranged in opposition via a plurality of barrier ribs formed on at least one of the substrates, and a bonding agent applied to the barrier ribs. The display panel manufacturing method includes an applying process for applying the bonding agent to an area on each barrier rib that is at least as large as a top of each barrier rib; a hardening process for selectively hardening parts of the attached bonding agent positioned in a central area



of the barrier rib tops, when viewed widthwise; and a removing process for removing the parts of the bonding agent that-have not been hardened.--.

Please replace the paragraph beginning on page 18, line 21, with the following rewritten paragraph:

-- Here, the application area for the bonding agent is not established from the outset as in screen-printing. Instead, the bonding agent is arranged on the barrier rib tops, covering an area than is wider than the barrier rib tops. Central parts of the-arranged bonding agent are then hardened and the parts that still remain soft are selectively removed, leaving the bonding agent arranged appropriately along the barrier rib tops. As a result, the bonding agent can be applied evenly along the narrow barrier rib tops using a simple technique, enabling a display panel with greater bonding strength to be obtained. If the accuracy with which parts of the bonding agent are hardened can be improved, the bonding agent can be applied evenly along the narrow barrier rib tops using a simple technique, even if the barrier rib tops are not strictly linear, and form wavy lines. This enables a display panel with even greater bonding strength to be obtained.--.

Please replace the paragraph beginning on page 19, line 11, with the following rewritten paragraph:

-- In the applying process, a compound of bonding agent and photo-hardening resin is applied to the barrier rib tops; and in the hardening process, central parts of the applied compound are exposed to light, causing the exposed parts of the compound to harden--.

Please replace the paragraph beginning on page 19, line 23, with the following

rewritten paragraph:

AAE --The bonding agent is arranged on the barrier ribs using a compound including a substance which is more difficult to melt than the bonding agent.--

Please replace the paragraph beginning on page 19, line 26, with the following

rewritten paragraph:

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ABZ --The substance supports the load of the front substrate, preventing bonding agent melted when the substrates are sealed from being pressed down by the weight of the front substrate and seeping into the cell area. This stops the panel from being fired with bonding agent seepage inside the cell area.--

Please replace the paragraph beginning on page 20, line 5, with the following rewritten

paragraph:

ABZ --Next, to achieve the above second object, the present invention also includes a gas discharge panel, including a first substrate, on which a plurality of pairs of electrodes extending in a first direction, and a dielectric layer covering the electrodes have been formed, and a second substrate, on which a plurality of barrier ribs, extending in a second direction differing from the first direction, are formed in opposition to the dielectric layer and the electrode pairs so that the barrier ribs are separated from the dielectric layer and the electrode pairs. Here the dielectric layer and the barrier ribs are at least partially connected via a bonding agent. The panel is structured such that discharge mainly occurs in parts of the panel separated from the positions where the barrier ribs and the dielectric layer are connected.--

Please replace the paragraph beginning on page 22, line 14, with the following rewritten paragraph:

*AB*  
-- Gas should preferably be enclosed in the space between the 15 first and second substrates of the gas discharge panel at a pressure of not less than 760 Torr ( $1.01 \times 10^5$  Pa).--

Please replace the paragraph beginning on page 31, line 7, with the following rewritten paragraph:

*AB*  
--In the present embodiment, the pressure of the enclosed inert gas is set at a high level of at least 760 Torr ( $1.01 \times 10^5$  Pa), and at least as great as atmospheric pressure.--.

Please delete the paragraph beginning on page 62, line 10.

Please replace the paragraph beginning on page 68, line 9, with the following rewritten paragraph:

*AB*  
-- The inside of a PDP manufactured based on the above embodiments was pressurized by the introduction of air, and the bonding strength determined by the pressure value obtained at the time the panel exploded. The resulting value was found to be 6100 Torr ( $8.11 \times 10^5$  Pa).--.

**IN THE CLAIMS:**

Please cancel Claims 6, 8, 9, 10, 11, 16, 17, 18, 19, 22, 30, 32, 33, 34, and 37 without prejudice.

Please amend the claims as follows: